

PANEL B

Lead	Criteria	Pts ea crit	Lead Max Pt	L A D Ant-sept,sup	RCA Inf	LCX Post-lat
V8R Post	Q>=70ms Q>=60ms	2 1		0 1 2 3 4 5 6 7 8 9 10 11	0 1 2 3 4 5 6 7 8 9 10 11	0 1 2 3 4 5 6 7 8 9 10 11
V4R Ant Add Post	any Q R>=36ms	1 2	1	1 2		2 3 1 1 2
delete	R/S>=4	3	4			2 4 3
	R/S>=2	2				1 3 2
	R/S>=1	1				1 2
V8 Post	Q>=46ms Q>=36ms R/Q>=2 R/Q>=4	2 1 2 1				3 3 2 1 1 3 2 2 1
TOTALS	Points->					
			%LVI>			

DATA TABLE II

PANEL A				PANEL B											
ECG POINTS (3% LV each)				% INFARCT IN 12 LV SEGS											
With RBBB				L A D			RCA			LCX					
Lead	Criteria	Pts ea crit	Lead Max Pt	Ant-sept-sup			Inf			Post-lat					
				1	2	3	4	5	6	7	8	9	10	11	12
I Sup-api	Q>=30ms	1					1	1					1		
	R/Q<=1	1	2				2	1							
	R<=0.2mV	1													
II Inf-api	Q>=40ms	2	2							1	2	2		1	
	Q>=30ms	1								1	1			1	
AVL Sup	Q>=30ms	1	2				2	1							
	R/Q<=1	1					1	2							
AVF Inf	Q>=50ms	3								3	2	2		1	1
	Q>=40ms	2								2	2	2			
	Q>=30ms	1	5							2	1				
	R/Q<=1	2								2	3			1	
	R/Q<=2	1								1	2				
V1 Ant	Any Q	1	2		1	2									
	Post R/S>=1	1											1	2	
	R>=50ms	2	4							1	1		2	1	1
	R>=40ms	1								1			1	1	
	Q&S<=0.3mV	1								1			1	1	
V2 Ant	Any Q	1													
	R<=10ms	1	1		2	1									
	R<=0.1mV	1													
	Post R/S>=1.5	1								1			1	1	
	R>=60ms	2	4							1	1		1	2	1
	R>=50ms	1								1			1	1	
	Q&S<=0.4mV	1											1	2	
V3 Ant	Any Q	1													
	R<=20ms	1	1		2	1									
	R<=0.2mV	1													
	RV3<=RV1	1													
V4 Ant-	Q>=20ms	1			1	1	1								
apical	R/Q<=0.25	2			3	2	1								
	R/S<=0.25	2													
	R/Q<=0.5	1	3		1	1	1								
	R/S<=0.5	1													
	R<=0.6mV	1													
V5 Apical	Q>=30ms	1			1	1	1								
	R/Q<=0.5	2			1	1	2	2							
	R/S<=0.5	2													
	R/Q<=1	1	3		1		1	1							
	R/S<=1	1													
	R<=0.6mV	1													
V6 Post-	Q>=30ms	1					1		1				1		
apical	R/Q<=1	2					1		2				3		
	R/S<=1	2													
	R/Q<=2	1	3												
	R/S<=2	1							1			2			
	R<=0.6mV	1													
TOTALS	Points->														
			%LVI>												

DATA-TABUE III

If > 1 criteria in bracket met, select 1 with most points
 If > 1 criterif a in bracket has same point, score only once
 Ane normalize amplitude criteria to one 50 increasing them by

[illegible]

DATA TABLE IV

PANEL A				PANEL B											
ECG POINTS (3% LV each)				% INFARCT IN 12 LV SEGMENTS											
With LVH ± LAFB		Pts ea	Lead Max	LAD			RCA			LCX					
Lead	Criteria	crit	Pt	Ant-sept,-sup			Inf			Post-lat					
				1	2	3	4	5	6	7	8	9	10	11	12
I Sup-apical	Q>=30ms R/Q<=1 R<=0.2mV	1 1 1	2				1	1					1		
II Inf-apical	Q>=50ms * Q>=40ms	2 1	2							1	2	2		1	
AVL Sup	Q>=40ms R/Q<=1	1 1	2				2	1							
AVF Inf	* Q>=60ms * Q>=50ms * Q>=40ms R/Q<=1 R/Q<=2	3 2 1 2 1	5							3	2	2		1	1
V1 Ant	* Any QR Post R/S>=1 * R>=56ms * R>=48ms Q&S<=0.3mV	1 1 2 1 1	2										1	2	
V2 Ant	* Any QR RV2<RV1 Post R/S>=1.5 * R>=66ms * R>=58ms Q&S<=0.4mV	1 1 2 2 1	4							1	1		1	2	1
V3 Ant	* Any QR * R<=10ms * R<=0.1mV RV3<RV1	1 1 1 1	1												
V4 Ant-apical	Q>=20ms R/Q<=0.25 R/S<=0.25 R/Q<=0.5 R/S<=0.5 R<=0.6mV	1 2 2 1 1 1	3	1	1		1								
V5 Apical	Q>=30ms R/Q<=0.5 R/S<=0.5 R/Q<=1 R/S<=1 R<=0.6mV	1 2 2 1 1 1	3	1	1		1								
V6 Post-apical	Q>=30ms R/Q<=1 R/S<=1 R/Q<=2 R/S<=2 R<=0.6mV	1 2 2 1 1 1	3				1			1			1		
TOTALS Points->															
%LVMI>															

DATA TABLE IV

Detection Criterial Threshold:

Criteria Thresholds (in uV and ms)	Threshold	RBBB	LAFB	RVH	LVH	Points	Location	Notes
I Q Dur >=	34					2	A	1
I R/Q <=	3					2	A	
III Q Dur >= OR	32				32	1	I	
II R/Q <=	4					1	I	
aVL Q >= OR	36				36	1	A	
aVL Q Dur w/ neg aVL T >=	32				32	1	A	
aVF Q Dur >= OR	34				34	2	I	2
aVF Q Dur w/ neg aVF T >=	24				24	-		3
aVF R/Q <=	1.8					1	I	
V1 Q Dur >	0					1	A	
V1 R/S >= OR	1.6	X		X		1	P	
V1 R Dur >=	50	X		X		1	P	
V1 Q & S <=	200	X		X		1	P	
V2 Ant Q Dur >	0				QandR	1	A	4
V2 Post R/S >=	5	X		X		1	P	
V2 Post R Dur >=	58	X		X		1	P	
V3 Q Dur >=	24					1	A	
V4 Q Dur >=	36					1	A	
V4 R/Q <= OR	3					1	A	
V4 R/S <= OR	0.3					1	A	
V4 R Amp <=	400				600	1	A	
V5 Q Dur >=	32					2	A	
V5 R/Q <= OR	5					2	A	
V5 R/S <= OR	0.7				1.5	1	A	
V5 R Amp <=	400				500	1	A	
V6 Q Dur >=	32					1	P	
V6 R/S <=	2				1.5	1	P	
[Points for 3 Inf neg Ts OR						2	I	
Points for 2 Inf neg Ts]						1	I	
Points for 2 Ant neg Ts						1	A	
Points for 1 aVL neg Ts						1	A	
Points for V2T-V6T >=	600				X	1	P	
[V2R dur <= AND	20				X	-	-	
V2R+V3R dur <=	40				X	1	A	5
[Anterior Duration <= AND	18					1	A	6
Anterior Distance <= AND	400					-	-	
Max Posterior Amplitude >=	50					-	-	
[Superior Distance >= AND	300					1	I	7
Max Superior Amplitude >=	100					-	-	
[Anterior/Posterior Ratio >= AND	2	X		X		1	P	8
Max Anterior Amplitude >=	500					-	-	

NOTES:

1. aVL Q Threshold changed based on presence on negative T in aVL AND I (Tamp <= T amp Threshold).
2. aVF Q scores 2 points if II Q >= 26mS, otherwise aVF Q scores 1 point.
3. aVF Q Threshold changed based on presence on negative T in aVF (aVF T amp <= T amp Threshold).
4. With LVH present, a Q followed by an R must be present to score points (Q only does not score).
5. One point for: [V2R <= 20mS] AND [(V2R+V3R) <= 40mS].
6. One point for: [Anterior Duration <= 18] AND [Anterior Distance <= 400]
7. One point for: [Superior Distance >= 300] AND [Max Superior Amp >= 100]
8. One point for: [Max Anterior Amp >= 500] AND [(Max Anterior Amp)/Max Posterior Amp] >= 2]
9. An X indicates the criteria is disabled if the given confounder is true.

DATA TABLE VI

60 yr. old male

Criteria Thresholds (in uV and ms)		RBBB	LAFB	RVH	LVH
I Q Dur >=	34				
II R/Q <=	-1				
I R Amp <=	-1				
II R/Q <=	-1				
II Q Dur >=	1000				
II Q Dur >=	32				32
aVL Q >=	34				34
aVL Q Qual Dur >=	30				30
aVL R/Q <=	-1				
aVF Q Dur >=	1000				
aVF Q Dur >=	1000				
aVF Q Dur >=	34				34
aVF Q Qual Dur >=	24				24
aVF R/Q <=	-1				
aVF R/Q <=	1.8				
V1 Q Dur >	0				
V1 R/S >=	1.6	X		X	
V1 R Dur >=	1000				
V1 R Dur >=	54	X		X	
V1 Q & S <=	200	X		X	
V2 Ant Q Dur >	0				QandR
V2 Ant R Dur <=	-1				X
V2 Ant R Amp <=	-1				X
V2 Post R/S >=	5	X		X	
V2 Post R Dur >=	1000				
V2 Post R Dur >=	58	X		X	
V2 Q & S <=	-1	X		X	
V3 Q Dur >=	1000				
V3 R Dur <=	-1				
V3 R Amp <=	-1				
V3 Q Dur >=	24				
V3 R Dur <=	-1				
V3 R Amp <=	-1				
V4 Q Dur >=	1000				
V4 R/Q <=	-1				
V4 R/S <=	-1				
V4 R/Q <=	3				
V4 R/S <=	0.3				
V4 R Amp <=	400				600
V5 Q Dur >=	34				
V5 R/Q <=	-1				
V5 R/S <=	-1				
V5 R/Q <=	5				
V5 R/S <=	0.7				1.5
V5 R Amp <=	370				500
V6 Q Dur >=	34				
V6 R/Q <=	-1				
V6 R/S <=	-1				
V6 R/Q <=	-1				
V6 R/S <=	1.8				1.5
V6 R Amp <=	-1				-1
T amp <=	-75				
Points for 3 Inf neg Ts	1				
Points for 2 Inf neg Ts	1				
Points for 2 Ant neg Ts	1				
V2R dur <=	20				
V2R+V3R dur <=	40				X
Anterior Duration <= (Ant)	15				
Superior Distance >=	450				

DATA TABLE VII

Lead	Criteria	Nominal Threshold	Confounder Adjustments				Amp or Dur Adjustment	Notes	ECG Points 3% LV each		% LV Infarct in 12 Segments											
			RBBB	RVH	LAFB	LVH					LAD			RCA			LCX					
											1	2	3	4	5	6	7	8	9	10	11	12
Lead I	Q dur >= { I R/Q <= OR R <= }	34mS 4	-	-	-	-	-	Yes	1	2	1	1	2	1	2	1						1
Sup-apl		0.15mV	-	-	-	-	-	Yes	1													
Lead II	Q dur >= OR	40mS	-	-	-	50mS	-	Yes	2	3												
Inf-apl	Q dur >= OR	32mS	-	-	-	40mS	-	Yes	1													
	Q dur >= }	-	-	-	-	32mS	-	No	1													
	Ramp/Qamp <=	4	-	-	-	-	-	-	1													
Lead aVL	Q dur >= OR	32mS	-	-	40mS	40mS	-	Yes	1	2												
Sup	Q dur >= OR	-	-	-	36mS	36mS	-	No	1													
	Qdur >= xx w/ neg I&aVL T }	32mS	-	-	32mS	32mS	-	No	1													
	Ramp/Qamp <=	1	-	-	-	-	-	-	1													
Lead aVF	{ Q >= OR	50mS	-	-	-	60mS	-	Yes	3	5												
Inf-apl	Q >= OR	42mS	-	-	-	50mS	-	Yes	2													
	Q >= OR	34mS	-	-	-	40mS	-	Yes	1													
	Q >= OR	-	-	-	-	34mS	-	No	1													
	Qdur >= xx w/ neg aVF T }	24mS	-	-	-	24mS	-	No	1													
	{ Ramp/Qamp <= OR	1	-	-	-	-	-	-	2													
	Ramp/Qamp <= 1 }	2	-	-	-	-	-	-	1													
Prominent Initial Superior Forces	[Superior Distance >= AND Maximum Superior Amplitude >=]	300 100	-	-	-	-	-	-	1	1												
Lead V1	Q dur >= (any Q)	0mS	-	-	-	X	-	-	1	1												
Ant	Q dur >= AND R dur >= (any QR)	X	-	-	-	0mS	-	-	1													
Post	Ramp/Samp >=	1.3	X	X	-	-	-	-	1	2												
	{ (Qamp AND Samp) <= OR (Qamp AND Samp) <= }	0.15mV 0.20mV	X	X	-	-	-	Yes	1													
Post 12L scoring	{ R dur >= OR R dur >= }	56mS 46mS	X	X	-	-	-	Yes	2	2												
Post 15L scoring	{ R dur >= OR R dur >= }	56mS 50mS	X	X	-	-	-	Yes	1	1												
Lead V2	{ Q dur >= (any Q) OR R amp <= }	0mS 10mS	-	-	-	X	-	-	1	1												
Ant	R amp <= }	0.04mV	-	-	-	X	-	Yes	1													
	Q dur >= AND R dur >= (any QR)	X	-	-	-	0mS	-	-	1													
Post	Ramp/Samp >= (Qamp AND Samp) <=	3 0.30mV	X	X	-	-	-	-	1	2												
Post 12L scoring	{ R dur >= OR R dur >= }	64mS 56mS	X	X	-	-	-	Yes	2	2												
Post 15L scoring	{ R dur >= OR R dur >= }	64mS 58mS	X	X	-	-	-	Yes	1	1												
Prominent	[Anterior/Posterior Ratio >= AND	2	X	X	-	-	-	No	1	1												

DATA TABLE VIII

Anterior Forces Post	Maximum Anterior Amplitude >=]	500	-	-	-	-	-	-	-
V2T - V6T Post	(V2 Tamp - V6 Tamp) >=	0.60mV	-	-	X		5	1	1
Lead V3 Ant	{ Q dur >= OR R amp <= OR Q dur >= OR R amp <= OR Q dur >= }	34mS .040mV 26mS .070mV 24mS	-	-	-	Yes		2	2
			-	-	-	Yes		2	2
			-	-	-	Yes		1	1
			-	-	-	Yes		1	1
			-	-	-	No		1	1
Minimal Initial Anterior Forces Ant	[Anterior Duration <= AND Anterior Distance <= AND Maximum Posterior Amplitude >=]	18 400 50	-	-	-		6	1	1
V2R+V3R dur Ant	[V2R<=20mS AND (V2R dur +V3R dur) <=]	20mS 40mS	-	-	X		7	1	1
Lead V4 Ant-apical	{ Ramp/Qamp <= OR Ramp/Samp <= OR Ramp/Qamp <= OR Ramp/Samp <= OR R amp <= OR R amp <= }	26mS 2 0.25 4 0.5 0.35mV 0.4mV	-	-	-	Yes		1	3
			-	-	-	-		2	2
			-	-	-	-		2	2
			-	-	-	-		1	2
			-	-	-	-		1	2
			-	-	-	Yes		1	1
			-	-	-	No		1	2
Lead V5 Apical	{ Ramp/Qamp <= OR Ramp/Samp <= OR Ramp/Qamp <= OR Ramp/Samp <= OR R amp <= OR R amp <= }	32mS 2.5 0.35 5 0.7 0.45mV 0.45mV	-	-	-	Yes		1	3
			-	-	-	-		2	1
			-	-	-	0.75		2	1
			-	-	-	-		1	1
			-	-	-	1.5		1	1
			-	-	-	0.60mV		1	1
			-	-	-	0.50mV		1	1
Lead V6 Post-Apical	{ Ramp/Qamp <= OR Ramp/Samp <= OR Ramp/Qamp <= OR Ramp/Samp <= OR R amp <= OR R amp <= }	32mS 1.8 1 3.6 2 0.45mV 0.175mV	-	-	-	Yes		1	3
			-	-	-	-		2	1
			-	-	-	0.75		2	1
			-	-	-	-		1	1
			-	-	-	1.5		1	1
			-	-	-	0.60mV		1	1
Lead V8 Post 15L scoring Lead Cz Post 15L scoring	R amp <= Q dur <= Q dur <=	0.175mV 58mS	X	X	-	Yes	2	1	1
			X	X	-	Yes	2	1	1

RED: Set's limits on the allowable RAG adjustment range for the given criteria.

GREEN: Prominent Initial Superior Forces only score in no Q detected in leads II or aVF.

BLUE: Prominent Anterior Forces - only score if no Posterior points in V1 or V2 detected.

PLOEC:

Prominent Anterior Forces - Only score if no Posterior points in V1 or V2 detected.

V2 Tamp - V6 Tamp - only score if no Posterior points detected in V1 and V2 and Prominent Anterior Forces are not detected.

PURPLE:

FOR-PL:
 Minimal Initial Anterior Forces - only score if (V2 R amp <=, V3 R amp <=) are not detected.
 V2R+V3R duration - only score if (V2 R amp <=, V2 R dur <=, V3 R amp <=, V3 R dur <=) are not detected.

DATA TABLE IX

Scoring Table for Sizing and Locating

How to Read the Table:

- 1. A 'Yes' in the 'Amp or Dur Adjustments' column indicates the Nominal Threshold is adjusted for race, age, and gender (see adjustment instructions below).
- 2. Change threshold if a Confounder is detected and a new threshold value is indicated in the Confounder Column.
- 3. An 'X' indicates the criteria is ignored if the Confounder is True. Example: V1 R/S is not scored if RBBB is detected.
- 4. A '-' indicates no change in criteria if the Confounder is True.
- 5. The {} symbol indicates an OR function. Once a criteria in an OR function is met, score the appropriate points, then skip the subsequent tests in the OR brackets.
- 6. The [] symbol indicates the AND function. All criteria inside the AND function must be met to score points.

Adjustments for Race, Age, and Gender:

Some amplitude and duration criteria thresholds are adjusted for Race, Age and Gender. No criteria adjustments are made to ratio criteria (Ramp/Qamp or Ramp/Samp). Refer to the column labeled "Amp or Dur Adjustment" to determine whether an individual criteria should undergo amplitude or duration adjustments.

Amplitude Adjust:	Age:	Normalize to 50 years. Threshold = Nominal Threshold * (1 + (50-patient age)/100)
	Gender:	Male, No adjustment;
		Female: Reduce Threshold by 20% (multiply threshold by 0.8)
	Race:	Black: Increase threshold by 120%
		All others: No adjustments
Duration Adjust:	Gender:	Male, No adjustment;
		Female: Reduce Threshold 10% (multiply threshold by 0.9)

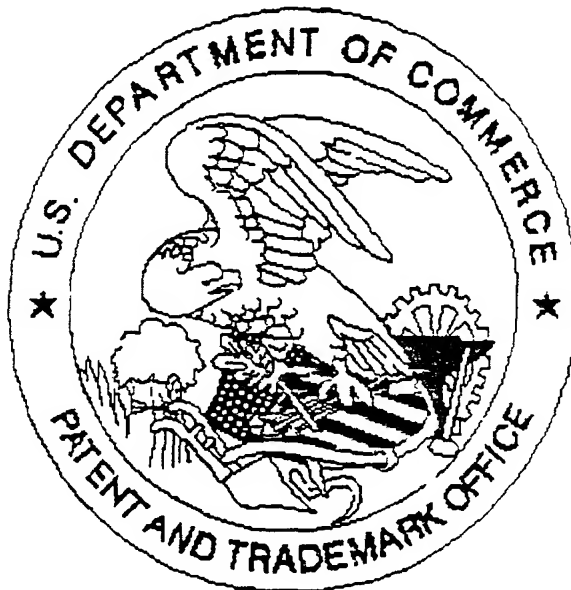
Notes: (Refer to Table, Column heading "Notes"

- 1. Score points for "Prominent Initial Superior Forces" only when none of the following Criteria are met:
II Q >=; aVF Q >=
- 2. Score one point for any Q unless LVH is present. If LVH detected, then 1 point scored for a Q followed by an R (Q or R only does not score)
- 3. Score 12 lead criteria for 12 lead ECG; Score 15 lead criterion for 15 lead ECG
- 4. Score points for "Prominent Anterior Forces" only when none of the following Criteria are met:
V1 R/S >=; V1 R dur >=; V1 Q&S <=; V2 R/S >=; V2 R dur >=; V2 Q&S <=; CZ Q dur >=; V8 R amp <=
- 5. Score points for "V2 T amp - V6 T amp >=" only when none of the following Criteria are met:
V1 R/S >=; V1 R dur >=; V1 Q&S <=; V2 R/S >=; V2 R dur >=; V2 Q&S <=; CZ Q dur >=; V8 R amp <=; Prominent Anterior Forces
- 6. Score points for "Minimal Initial Anterior Forces" only when none of the following Criteria are met:
V2 Any Q; V2 R dur <=; V2 R amp <=; V3 R amp <=
- 7. Score points for "V2R dur + V3Rdur >=40ms" only when none of the following Criteria are met:
V2 Any Q; V2 R dur <=; V2 R amp <=; V3 R amp <=; Minimal Initial Anterior Forces

DATA TABLE X

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